

## SEOUENCE LISTING

<110> Mack, David Gish, Kurt C., Eos Biotechnology, Inc.

<120> Novel Methods of Diagnosing Breast Cancer, Compositions, and Methods of Screening for Breast Cancer Modulators

<130> 018501-009700US

<140> US 09/642,034 <141> 2000-08-18

<150> US 09/268,865 <151> 1999-03-15

<150> US 09/450,810 <151> 1999-11-29

<150> US 09/453,137

<151> 1999-12-02

<150> US 09/525,361

<151> 2000-03-15

<150> WO PCT/US00/06952

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<160> 7

<170> PatentIn Ver. 2.1

<210> 1

<211> 3461

<212> DNA

<213> Homo sapiens

<223> human breast cancer protein BCR4 cDNA

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<221> CDS

<222> (138)..(2405)

<223> human BCR4

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<212> DNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence:additional 18
   base sequence in BCR4 not found in published human
   LIV-1
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18

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<210> 3
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<212> DNA
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<223> Description of Artificial Sequence:sequence in
      BCR4 containing two additional t residues not
      found in published human LIV-1
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                                                                  27
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<210> 4
<211> 2268
<212> DNA
<213> Homo sapiens
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<223> open reading frame encoding human breast cancer
      protein BCR4
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cttcatgaac taaaagcagc tgctttcccc cagaccactg agaaaattag tccgaattgg 120
gaatctggca ttaatgttga cttggcaatt tccacacggc aatatcatct acaacagctt 180
ttctaccgct atggagaaaa taattctttg tcagttgaag ggttcagaaa attacttcaa 240
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gaccacgage atcactcaga ccatgagegt cactcagace atgageatea etcagaceae 360
gagcatcact ctgaccatga tcatcactct caccataatc atgctgcttc tggtaaaaat 420
aagcgaaaag ctctttgccc agaccatgac tcagatagtt caggtaaaga tcctagaaac 480
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<213> Homo sapiens
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<223> human breast cancer protein BCR4
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Thr Glu Lys Ile Ser Pro Asn Trp Glu Ser Gly Ile Asn Val Asp Leu
                                                45
                            40
Ala Ile Ser Thr Arg Gln Tyr His Leu Gln Gln Leu Phe Tyr Arg Tyr
                        55
Gly Glu Asn Asn Ser Leu Ser Val Glu Gly Phe Arg Lys Leu Leu Gln
                                        75
Asn Ile Gly Ile Asp Lys Ile Lys Arg Ile His Ile His His Asp His
                                    90
Asp His His Ser Asp His Glu His His Ser Asp His Glu Arg His Ser
                               105
           100
Asp His Glu His His Ser Asp His Glu His His Ser Asp His Asp His
                                               125
                           120
       115
His Ser His His Asn His Ala Ala Ser Gly Lys Asn Lys Arg Lys Ala
                       135
Leu Cys Pro Asp His Asp Ser Asp Ser Ser Gly Lys Asp Pro Arg Asn
                                       155
                   150
Ser Gln Gly Lys Gly Ala His Arg Pro Glu His Ala Ser Gly Arg Arg
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               165
Asn Val Lys Asp Ser Val Ser Ala Ser Glu Val Thr Ser Thr Val Tyr
                               185
           180
Asn Thr Val Ser Glu Gly Thr His Phe Leu Glu Thr Ile Glu Thr Pro
                            200
        195
Arg Pro Gly Lys Leu Phe Pro Lys Asp Val Ser Ser Ser Thr Pro Pro
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                       215
Ser Val Thr Ser Lys Ser Arg Val Ser Arg Leu Ala Gly Arg Lys Thr
                                       235
                   230
Asn Glu Ser Val Ser Glu Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn
                                   250
                245
Thr Asn Glu Asn Pro Gln Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr
                                265
Ser His Gly Met Gly Ile Gln Val Pro Leu Asn Ala Thr Glu Phe Asn
                            280
Tyr Leu Cys Pro Ala Ile Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu
                                            300
                       295
Ile His Thr Ser Glu Lys Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser
                                        315
                    310
Leu Gln Ile Ala Trp Val Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser
                                    330
                325
Phe Leu Ser Leu Leu Gly Val Ile Leu Val Pro Leu Met Asn Arg Val
                                345
            340
Phe Phe Lys Phe Leu Leu Ser Phe Leu Val Ala Leu Ala Val Gly Thr
                           360
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Leu Ser Gly Asp Ala Phe Leu His Leu Leu Pro His Ser His Ala Ser
    370
                        375
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His His His Ser His Ser His Glu Glu Pro Ala Met Glu Met Lys Arg
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Gly Pro Leu Phe Ser His Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala
                405,
                                    410
Tyr Phe Asp Ser Thr Trp Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr
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Phe Met Phe Leu Val Glu His Val Leu Thr Leu Ile Lys Gln Phe Lys
        435
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Asp Lys Lys Lys Asn Gln Lys Lys Pro Glu Asn Asp Asp Asp Val
                       455
Glu Ile Lys Lys Gln Leu Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn
                    470
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Glu Glu Lys Val Asp Thr Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala
                485
                                    490
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Asp Ser Gln Glu Pro Ser His Phe Asp Ser Gln Gln Pro Ala Val Leu
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Glu Glu Glu Val Met Ile Ala His Ala His Pro Gln Glu Val Tyr
                            520
                                                525
Asn Glu Tyr Val Pro Arg Gly Cys Lys Asn Lys Cys His Ser His Phe
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                                            540
His Asp Thr Leu Gly Gln Ser Asp Asp Leu Ile His His His Asp
                    550
                                        555
Tyr His His Ile Leu His His His His Gln Asn His His Pro His
                565
                                    570
Ser His Ser Gln Arg Tyr Ser Arg Glu Glu Leu Lys Asp Ala Gly Val
            580
                                585
Ala Thr Leu Ala Trp Met Val Ile Met Gly Asp Gly Leu His Asn Phe
                            600
Ser Asp Gly Leu Ala Ile Gly Ala Ala Phe Thr Glu Gly Leu Ser Ser
                        615
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Gly Leu Ser Thr Ser Val Ala Val Phe Cys His Glu Leu Pro His Glu
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                                       635
Leu Gly Asp Phe Ala Val Leu Leu Lys Ala Gly Met Thr Val Lys Gln
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Ala Val Leu Tyr Asn Ala Leu Ser Ala Met Leu Ala Tyr Leu Gly Met
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                                                   670
Ala Thr Gly Ile Phe Ile Gly His Tyr Ala Glu Asn Val Ser Met Trp
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Ile Phe Ala Leu Thr Ala Gly Leu Phe Met Tyr Val Ala Leu Val Asp
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Met Val Pro Glu Met Leu His Asn Asp Ala Ser Asp His Gly Cys Ser
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Arg Trp Gly Tyr Phe Phe Leu Gln Asn Ala Gly Met Leu Leu Gly Phe
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<213> Artificial Sequence

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<223> Description of Artificial Sequence:amino acid
 sequence encoded by additional 18 base sequence of
 BCR4 cDNA

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            <212> PRT
            <213> Artificial Sequence
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            <223> Description of Artificial Sequence:cytokine
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                  domain conserved motif
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            <221> MOD_RES
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            <223> Xaa = any amino acid
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            Trp Ser Xaa Trp Ser
B5
bondade
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